

system.³⁷⁴ As of June 2004, Knology was the 20th largest MVPD, and had 174,957 video subscribers, up from 132,163 video subscribers one year earlier.³⁷⁵ Grande, which operates systems in several cities in Texas, experienced substantial growth over the past year, with video connections increasing from 49,000 to 78,000, and high-speed data increasing from 23,000 to 47,000, between June 2003 and June 2004.³⁷⁶

73. Last year we reported that many overbuilders were experiencing financial difficulties. These difficulties continued this year, and perhaps intensified with RCN's bankruptcy. The parent company of Seren Innovations, which operates in Minnesota, is now seeking to sell the BSP.³⁷⁷ An additional trend in the past year is some consolidation among BSPs. As we reported above and last year, Knology acquired Verizon's overbuild systems. Additionally, Champion, which was formed when the founder of WideOpenWest left the company and purchased WideOpenWest's Denver system,³⁷⁸ acquired Altrio, which serves more than 7,000 subscribers in Pasadena, Arcadia, and Monrovia, California.³⁷⁹ Consolidation may help BSPs in financial difficulty improve their prospects, although the wide dispersal of BSP systems limits opportunities for clustering that have provided cost savings for incumbent cable operators.

74. **Competitive Responses.** BSPA and RCN highlight a 2004 General Accounting Office (GAO) study that examined overbuild video systems.³⁸⁰ The report states that communities with overbuild competition experience lower rates (an average of 23 percent lower for basic cable) and higher quality service.³⁸¹ The Commission's Annual Survey of Cable Industry Prices reported similar findings, although it found smaller price differentials (6.4 percent in 2002) studying a larger sample and looking at the combined rate for the basic and most popular CPST.³⁸² Comcast notes that several BSPs have emerged, or soon will emerge, from bankruptcy with strengthened balance sheets.³⁸³

75. **Barriers to Competition.** As in previous years,³⁸⁴ BSPs continue to report barriers to competition in the MVPD market. BSPA states that discrimination in access to and pricing of video programming and other digital content constitute a threat to BSP entry and competition.³⁸⁵ Comcast

³⁷⁴ Knology Inc., *Knology Reports Second Quarter Results* (press release), July 27, 2004. Knology states that it will use proceeds from the sale to fund capital improvements to the Florida system acquired from Verizon.

³⁷⁵ Knology Inc., *Knology Reports Second Quarter Results* (press release), July 27, 2004. For a full list of communities served, see Knology, Inc., <http://www.knology.com/services/cities.cfm> (visited Jan. 14, 2005).

³⁷⁶ Grande Communications Holdings, Inc., *Grande Communications Holdings, Inc. Announces Results for the Second Quarter Ending June 30, 2004* (press release), Aug. 12, 2004.

³⁷⁷ Xcel Energy, Inc., *Xcel Energy To Market Subsidiary Seren Innovations* (press release), Sept. 27, 2004.

³⁷⁸ 2003 Report, 19 FCC Rcd at 1660-61 ¶ 81.

³⁷⁹ Champion Broadband, *Altrio Communications Sells Assets to Champion Broadband* (press release), Apr. 6, 2004.

³⁸⁰ BSPA Comments at 7-9; RCN Comments at 7-9. See also SBC Comments at 2.

³⁸¹ GAO, *Telecommunications: Wire-Based Competition Benefited Consumers in Selected Markets*, Feb. 2004 (GAO 2004 Report).

³⁸² RCN Comments at 8, citing FCC, *FCC Releases Report on 2002 Cable Industry Prices* (FCC News Release), July 8, 2003. RCN also cites a report with similar information by the U.S. Public Interest Research Group, *The Failure of Cable Deregulation: A Blueprint for Creating a Competitive, Pro-Consumer Cable Television Marketplace*, Aug. 2003.

³⁸³ Comcast Comments at 17-18. See also NCTA Reply Comments, an attachment entitled, "Survey of Incumbent Cable Operators in Overbuild Communities," for a list of communities in which overbuilding has occurred.

³⁸⁴ See, e.g., 2003 Report, 19 FCC Rcd at 1662-63 ¶ 84.

³⁸⁵ BSPA Comments at 12-14 and Reply Comments at 7-12; RCN Comments at 9-10. Comcast, conversely, holds that competition has expanded to the point that the Commission should review its recent decision to extend the

(continued....)

disputes these allegations, noting that exclusive access to content is common in other industries, and stating that competition would be enhanced by the elimination of regulations that prohibit exclusive carriage agreements between vertically-integrated programmers and cable operators.³⁸⁶ BSPA also claims that cable operators are engaging in discriminatory pricing strategies, characterized as “targeted” or “predatory” pricing, and recommends that the Commission require cable operators to disclose all rates and promotions offered to any customer in a local franchise area.³⁸⁷ BSPA also identifies exclusive long-term MDU access contracts as a barrier to entry. BSPA states that such contracts can lock MDU residents into receiving service from an incumbent MVPD provider with a less modern network, and urges the Commission to revisit its 2003 decision concerning perpetual and long term agreements for MDU access.³⁸⁸ Finally, BSPA notes that difficulties remain for BSPs and other wireline MVPDs gaining access to utility poles at reasonable rates.³⁸⁹

D. Broadcast Television Service

1. General Performance

76. Broadcast networks and local stations supply video programming directly over the air to consumers. Consumers who do not subscribe to an MVPD service rely solely on over-the-air transmission of local broadcast television signals. Other households receive broadcast television programming over the air on those television receivers that they have chosen not to connect to an MVPD service. In addition, many consumers receive broadcast signals via their cable, DBS, or other MVPD service.

77. As we reported last year, broadcast television stations’ audience shares have continued to fall as cable and DBS penetration, the number of cable channels, and the number of nonbroadcast networks continue to grow. For the 2003-2004 television season, broadcast television stations accounted for a combined average 48 share of prime time viewing among all television households, compared to a 49 share in the previous season.³⁹⁰ Similarly, broadcast stations achieved a 44 share of all-day (24-hour) viewing during the 2003-2004 season, down from a 45 share the previous season. In contrast, nonbroadcast channels’ collective audience share continues to grow. In the 2003-2004 television season, nonbroadcast channels³⁹¹ accounted for a combined average 52 share of prime time viewing among all

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program access rules for another five years, and either eliminate the prohibition against exclusive contracts between vertically integrated programmers and cable operators, or modify it so that it cannot be invoked by any MVPD with more than 10 million customers. Comcast Comments at 42.

³⁸⁶ Comcast Reply Comments at 17-20. See also NCTA Reply Comments at 12-15.

³⁸⁷ BSPA Comments at 14-18 and Reply Comments at 7. See also RCN Comments at 10. Comcast and NCTA dispute these allegations, and Comcast notes that aggrieved parties are free to seek remedial relief from the Department of Justice. Comcast Reply Comments at 20-23; NCTA Reply Comments at 10-12 (specifically responding to NATOA’s allegations of “anticompetitive practices”).

³⁸⁸ BSPA Comments at 19-20; RCN Comments at 10.

³⁸⁹ BSPA Comments at 20-22; RCN Comments at 10.

³⁹⁰ Nielsen Media Research, *Broadcast Calendar (TV Season) Share of Audience Report, Prime Time and Total Day*, Sept., 2004. Nielsen reports audience shares that exceed 100 percent when totaled due to simultaneous multiple set viewing. We have normalized audience shares to equal 100 percent.

³⁹¹ Includes basic (BST and CPST) networks, as well as premium and PPV networks, distributed by MVPDs.

television households, up from the 51 share in the previous season.³⁹² For all day viewing, nonbroadcast channels accounted for a 56 share of all-day viewing, up from a 55 share in the previous season.

78. Since the *2003 Report*, the number of commercial and noncommercial television stations increased from 1,726 as of June 30, 2003, to 1,747 as of June 30, 2004.³⁹³ Total television broadcast advertising revenues generally remained steady, increasing from \$42.1 billion in 2002, to \$42.4 billion in 2003.³⁹⁴ Advertising revenue for the seven most widely distributed broadcast networks (ABC, CBS, Fox, NBC, PAX, UPN, and WB) was estimated at \$22.8 billion in 2003, a 3.6 percent increase over the \$22.0 billion earned in 2002.³⁹⁵ In contrast, cable programming networks experienced a 15.6 percent increase in advertising revenue in 2003, earning \$14.0 billion in advertising revenue compared to \$12.1 billion in 2002.³⁹⁶ In the *Notice*, we asked to what extent broadcasters receive additional revenues such as payments for retransmission consent.³⁹⁷

79. In the *Notice*, we asked to what extent cable television and DBS retransmission consent negotiations are providing broadcasters with an additional revenue source, either through direct compensation or through indirect benefits, such as, for example, contracts for the carriage of affiliated programming. If the compensation is not direct, how is it accounted for?³⁹⁸ In response, Paxson states that for most local broadcasters, advertising revenue remains the primary revenue source and alternative revenues sources are non-existent.³⁹⁹ Other broadcasters confirm, however, that through the retransmission consent process, broadcasters receive cash or consideration comparable to cash and thus partake of the two revenue streams traditionally associated with the cable television market. Thus, according to a paper filed on behalf of the Walt Disney Company it offers cable systems the right to carry its owned station for approximately \$0.70 to \$0.80 per subscriber per month, but that a retransmission consent transaction may involve a variety of "currencies."⁴⁰⁰ According to this filing: "The outcome of [retransmission consent] bargaining may result in a complex agreement. Cable operators often choose to provide alternative consideration such as carriage of nonbroadcast networks that are affiliated with the broadcaster in lieu of cash payment. Because the details of each negotiation vary from one cable operator to another, and because the specific details of these agreements are generally confidential, a market price for retransmission consent rights is not transparent."⁴⁰¹

³⁹² We note that individual broadcast networks generally attract higher audience shares than individual nonbroadcast networks. For example, during the 2003-2004 television season, six of the seven broadcast networks attained average prime time audience shares greater than the average prime time audience share of the highest rated nonbroadcast networks. Nielsen Media Research.

³⁹³ Compare Federal Communications Commission, *Broadcast Station Totals as of June 30, 2003* (FCC News Release), July 22, 2003, with Federal Communications Commission, *Broadcast Station Totals as of June 30, 2004* (FCC News Release), Aug. 20, 2004.

³⁹⁴ Television Bureau of Advertising, *2003 TV Ad Revenue Figures*, at http://www.tvb.org/rcentral/adrevenue/track/revenue/2003/ad_figures (visited Sept. 17, 2004).

³⁹⁵ *Id.*

³⁹⁶ Robert J. Coen, *U.S. Advertising Volume 2000-2004*, Universal McCann, June 22, 2004.

³⁹⁷ See *Notice*, 19 FCC Rcd at 10927 ¶ 57.

³⁹⁸ *Id.*

³⁹⁹ Paxson Comments at 4.

⁴⁰⁰ Disney Reply Comments, Attachment 1, Exhibit 2, at 5. Disney includes The Walt Disney Company, ESPN (80 percent owned by Disney), Disney ABC Cable Networks Group (including The Disney Channel, ABC Family, Toon Disney and SOAPnet), The ABC Television Network and the ABC-owned television stations.

⁴⁰¹ *Id.* at 3.

2. Digital Television

80. Digital television (DTV) could enhance the ability of broadcasters to compete in the video marketplace.⁴⁰² DTV allows broadcasters to transmit a high-definition television (HDTV) signal, several standard definition television (SDTV) signals (multicasting), or ancillary services in addition to video programming.⁴⁰³ As of September 2004, all of the 40 stations that make up the top-four network affiliates in the top ten television markets were broadcasting DTV service.⁴⁰⁴ In television markets ranked 11-30, 79 stations were broadcasting DTV service.⁴⁰⁵ More than 1,468 stations are on the air with DTV operation.⁴⁰⁶ CEA notes, however, that despite the wide availability of DTV signals, some viewers still cannot receive many digital signals, because most stations are using less power than authorized for digital service.⁴⁰⁷

81. Analysts estimate that as of July 2004, 15.99 million households, or 14.75 percent of U.S. households, rely exclusively on over-the-air television for video programming.⁴⁰⁸ As of year-end 2003, there were between 7.0 and 8.7 million households with DTV monitors, and by year-end 2004, there could be as many as 13 or 14 million.⁴⁰⁹ NAB estimates that 88.8 percent of U.S. television households are in markets that have access to at least five over-the-air digital television signals, and 71.1 percent have access to at least eight or more digital television signals.⁴¹⁰ NCTA estimates that as of September 15, 2004, 90 million homes were passed by a cable system that offers programming in HD format, broadcast and/or nonbroadcast, and cable operators nationwide were carrying more than 454 digital broadcast stations.⁴¹¹

⁴⁰² 2003 Report, 19 FCC Rcd at 1670 ¶ 96.

⁴⁰³ *Id.*

⁴⁰⁴ *Summary of DTV Applications Filed and DTV Build Out Status*, at <http://www.fcc.gov/mb/video/files/dtvonairsum.html> (visited Jan. 14, 2005). Two stations in New York, WABC and WNBC, are not operating at full power with licensed DTV facilities, but instead are broadcasting with Special Temporary Authority (STAs) after their facilities were destroyed on September 11, 2001. STA File No. BMDSTA-20040419ACL and BEDSTA-20040614AHC.

⁴⁰⁵ *Summary of DTV Applications Filed and DTV Build Out Status*, at <http://www.fcc.gov/mb/video/files/dtvonairsum.html> (visited Jan. 14, 2005).

⁴⁰⁶ *Id.*

⁴⁰⁷ CEA Comments at 6-7.

⁴⁰⁸ Nielsen Media Research. In MB Docket No. 04-210, commenters note that as many as 19 percent, and as few as 13 percent, of U.S. households could be relying solely on over-the-air television for video programming. See NAB/MSTV Comments in MB Docket No. 04-210 at Appendix A at 7; CEA Comments in MB Docket No. 04-210 at 2-3.

⁴⁰⁹ Kagan World Media, *Digital TV*, Media Trends 2004, at 104; Adam S. Parker, Colin McGranahan, Dupree, Jonathan Feldman, *Digital TVs-On Your Market, Get Set, Go*, Bernstein Research, Feb. 6, 2004, at 21. DTV monitors do not necessarily contain DTV tuners. It is estimated that less than two million households have DTV sets with integrated tuners. The remaining households must purchase a DTV tuner to receive digital television over the air or subscribe to an MVPD that provides digital signal.

⁴¹⁰ Telephone Conversation with Brian Savoie, Manager Television Membership, NAB (Nov. 12, 2004). See also NAB Reply Comments at 3; NAB, *NAB Legislative Issue Paper*, Mar. 2004, at 8.

⁴¹¹ NCTA, *Cable's HDTV Deployment* at <http://www.ncta.com/images/HDTVkit-Deploy-final2.pdf> (visited Jan. 14, 2005); see also NCTA Comments at 31. This includes standard-definition and high-definition format programming.

a. Programming

82. Programmers are also offering an increasing amount of programming in high-definition (HD) format.⁴¹² Analysts estimate that ABC, CBS, NBC, and WB currently offer most of their prime time programming in HD format, while Fox and UPN currently offer about 50 percent of their prime time programming in HD format.⁴¹³ Fox will soon begin offering substantial amounts of HD as well.⁴¹⁴ From May 30, 2003, to June 13, 2003, 921 programs were offered in HD format, as tracked daily by Titan TV.com.⁴¹⁵ An estimated 87 percent of those HD programs were originated by nonbroadcast networks; 802 programs were offered by nonbroadcast programmers HDNet, DiscoveryHD, HBO, DIRECTV HD PPV, and Showtime HDTV; 119 programs were offered by broadcast networks CBS, ABC, NBC, PBS, and WB.⁴¹⁶

(i) Multicasting

83. Multicasting is the process by which multiple channels of standard definition television (SDTV) programming are transmitted at the same time over a single frequency. In its comments, Disney states that it offers *ABC News Now*, a 24/7 news channel offered to its local broadcast affiliates for transmission over their digital television signal as a multicast channel.⁴¹⁷ Launched in July 2004, *ABC News Now* was developed to provide expanded coverage of the Presidential election.⁴¹⁸ *ABC News Now* is currently still available and Disney has made no final decision to terminate the service.⁴¹⁹ All ten ABC-owned stations carry the service.⁴²⁰

(ii) Datacasting and Subscription Services

84. DTV also allows broadcasters to use part of their digital bandwidth for subscription multichannel video programming services and datacasting. These services can be provided simultaneously with HD or SD DTV programs in the same transmission, and can provide delivery of virtually any type of data, audio or video, including text, graphics, software, web pages, video-on-demand, and niche programming.⁴²¹

⁴¹² The Commission has established a website to provide programming and other information on DTV. See *What's on DTV?*, at <http://www.dtv.gov> (visited Jan. 14, 2005). See also <http://www.checkhd.com/programming/> (visited Jan. 14, 2005).

⁴¹³ Richard Bilotti, Benjamin Swinburne, and Megan Lynch, *Building for HD: How Cable & Satellite Stay Ahead of the Bells*, Morgan Stanley, July 8, 2004, at 4.

⁴¹⁴ NAB Reply Comments at 4.

⁴¹⁵ Kagan World Media, *Digital TV*, Media Trends 2004, at 7, 110, 112. See also <http://www.titantv.com> (visited Jan. 14, 2005); see also <http://www.checkhd.com/programming/> (visited Jan. 14, 2005).

⁴¹⁶ Kagan World Media, *Digital TV*, Media Trends 2004, at 7, 110, 112. Some cable and DBS HD channels provide full-time 24-hour HD service. CEA Comments at 6.

⁴¹⁷ Disney Reply Comments, Attachment 4, at 5.

⁴¹⁸ *Id.*

⁴¹⁹ See *ABC News Now*, at <http://abcnews.go.com/Video/VideoLive> and <http://www.real.com/partners/abcnews/> (visited Jan. 14, 2005).

⁴²⁰ Disney Reply Comments, Attachment 4, at 5.

⁴²¹ See NAB, *Destination Digital TV*, Sept. 2002.

85. Several companies are using broadcast spectrum for subscription video distribution via DTV streams.⁴²² U.S. Digital Television, Inc. (USDTV) uses local over-the-air DTV spectrum to offer a digital subscription service of broadcast and nonbroadcast programming for a monthly service fee of \$19.95.⁴²³ USDTV is currently available in Salt Lake City, Las Vegas, and Albuquerque, with additional deployments by the end of 2004.⁴²⁴ As of September 2004, USDTV had more than 10,000 subscribers.⁴²⁵ Emmis Communications has announced an initiative to develop an over-the-air multichannel video programming service using DTV spectrum and is seeking participation by other broadcasters in this effort.⁴²⁶ Disney uses digital spectrum to offer its data-cast movie service, MovieBeam, which provides a set-top box installed with 100 movies which are updated with ten new selections weekly via datacast.⁴²⁷ Disney rents digital spectrum primarily from ABC and PBS affiliated stations to transmit movies weekly.⁴²⁸

86. iBlast and dotcast are two distribution networks that use the digital broadcast spectrum of local TV stations to distribute digital media content directly to home computers, set-top boxes, DVRs, vehicle entertainment systems, game consoles, PDAs and MP3 players.⁴²⁹ Such media content includes video, games, music, and software.⁴³⁰

b. DTV Equipment.

87. The sale of DTV consumer electronics continues to accelerate. During 2003, more than four million DTV sets and displays had been shipped to retail outlets, nearly double the number that had been shipped in 2002.⁴³¹ During 2004, an estimated seven million DTV sets and displays will be shipped to retail outlets, and during 2005 it is expected that nearly 11 million DTV sets and displays will be shipped to retail outlets nationwide.⁴³² Pursuant to the Commission's tuner mandate, manufacturers now offer more than 100 models of HD-ready television sets with DTV tuners inside (integrated sets).⁴³³ The tuner mandate phase-in plan requires 50 percent of all new DTV sets with screen sizes 36 inches and above to

⁴²² Elisa Batista, *Datacasting Refuses to Die*, WIRED, Oct. 7, 2004, at <http://www.wired.com/news/print/0,1294,60716,00.html> (visited Jan. 14, 2005); Multicasting, *Datacasting Give Local Broadcaster Expanded News Coverage*, BROADCAST ENGINEERING, Feb. 4, 2004, at http://www.broadcastengineering.com/news/broadcasting_multicasting_datacasting_give/ (visited Jan. 14, 2005).

⁴²³ U.S. Digital Television, Inc., *USDTV Company Information*, at http://www.usdtv.com/company_info.php (visited Jan. 14, 2005).

⁴²⁴ U.S. Digital Television, Inc., *USDTV Availability*, at http://www.usdtv.com/why_usdtv-reception_maps.php (visited Jan. 14, 2005).

⁴²⁵ U.S. Digital Television, Inc., *USDTV Surpasses 10,000 Subscriber Milestone* (press release), Sept. 22, 2004.

⁴²⁶ Emmis Communications, *Television Broadcasters Initiative Unveiled* (press release), Apr. 20, 2004, at <http://www.emmis.com/press/home.aspx?pn=2> (visited Jan. 14, 2005).

⁴²⁷ MovieBeam Entertainment, at <http://www.moviebeam.com/flashindex.jsp> (visited Jan. 14, 2005).

⁴²⁸ *Id.*

⁴²⁹ See iBlast Inc., *What is iBlast?*, at <http://www.iblast.com/what.php3> (visited Jan. 14, 2005); see also Dotcast, Inc., at <http://www.dotcast.com/htdocs/home.htm> (visited Jan. 14, 2005).

⁴³⁰ *Id.*

⁴³¹ U.S. Consumer Electronics Sales & Forecasts, CEA Market Research, June 2004, at 3; *Washington Insider Series: The HDTV Transition*, CEA, Apr. 2004, at 1. Not all DTV sets and displays can display HD format programming. No separate figures are available for HDTV-ready sets.

⁴³² U.S. Consumer Electronics Sales & Forecasts, CEA Market Research, June 2004, at 3.

⁴³³ CEA, *DTV Product Guide, HDTV Summit, 2004*.

include DTV reception capability by July 1, 2004; 100 percent of DTV sets 13 inches and above must include DTV tuners by July 1, 2007.⁴³⁴

88. In its comments, Paxson Communications states that the Commission may need to revisit its tuner mandate⁴³⁵ to enact more exacting specifications for the rule-compliant over-the-air DTV tuners.⁴³⁶ It indicates that the quality and quantity of over-the-air DTV reception tuners seriously threatens local broadcasters' ability to compete.⁴³⁷ It asserts that high quality over-the-air tuners must be available in sufficient numbers and at a low enough price to provide DTV reception that is equivalent to today's analog reception.⁴³⁸ Paxson indicates that its transition to DTV is nearly complete, but it cannot attract viewers because few consumers have purchased DTV sets with over-the-air tuners.⁴³⁹

c. DTV Transition.

89. In our 2003 Report, we noted several rulemaking orders and notices that the Commission adopted during 2003 towards accelerating or promoting the transition to DTV.⁴⁴⁰ Among them were an inquiry regarding rules for digital low power television and television translator stations; the *Digital Broadcast Copy Protection* rules (also known as *Broadcast Flag*), including a second Notice; and the second Report and Order on the *Commercial Availability of Navigation Devices, Compatibility Between Cable Systems and Consumer Electronics Equipment* (also known as the *Plug and Play Rules*), including a second Notice on navigation devices and compatibility issues.⁴⁴¹ These proceedings were a first step toward advancing the DTV transition. This year, we report on the numerous Commission actions and industry efforts aimed at accelerating and improving the DTV transition.

90. **Plug and Play.** In December 2002, the cable and consumer electronics industries put forth an agreement for a standard for integrated, unidirectional (*i.e.*, one-way) digital cable television receivers and digital cable products. In October 2003, the Commission adopted the *Plug and Play Rules*.⁴⁴² Since our last Report, the cable and consumer electronics industries, along with other interested parties, continue to work on the development of an agreement for two-way "plug and play" receivers that would eliminate the need for a set-top box to receive two-way advanced cable services.⁴⁴³

⁴³⁴ *Review of the Commission's Rules and Policies Affecting the Conversion To Digital Television*, 17 FCC Rcd 15978, 15995-96 ¶¶ 39-40 (2002).

⁴³⁵ *Id.*

⁴³⁶ Paxson Comments at 16-17; *Digital Broadcast Copy Protection*, 18 FCC Rcd 23550 (2003) (*Broadcast Flag Order*); *Implementation of Section 304 of the Telecommunications Act of 1996, Commercial Availability of Navigation Devices, Compatibility Between Cable Systems and Consumer Electronics Equipment*, 18 FCC Rcd 20885 (2003) (*Plug and Play Rules*) recon. pending.

⁴³⁷ Paxson Comments at 16-17.

⁴³⁸ *Id.*

⁴³⁹ *Id.* at 8-14.

⁴⁴⁰ 2003 Report, 19 FCC Rcd at 1671-2 ¶¶ 98-102.

⁴⁴¹ *Id.* at 1671-2 ¶¶ 99-101. *Plug and Play Rules*, 18 FCC Rcd 20885; *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations*, 18 FCC Rcd 18365 (2003).

⁴⁴² See *Plug and Play Rules*, 18 FCC Rcd at 20886-7 ¶ 2. See also TiVo Reply Comments at 1-3; Gemstar Reply Comments at 6; and Letters from Paul Glist, Cole, Raywid & Braverman, Counsel for CableLabs, to Marlene Dortch, Secretary, FCC, July 28, 2004 and July 29, 2004, at 11-13, 18-22, 24-27, 29-30.

⁴⁴³ See SBCA Comments at 17. See also para. 39 *supra*, para. 187 *infra*.

91. **Broadcast Flag.** In its August 2004 *Broadcast Flag Order*, the Commission adopted digital copy protection rules to assure that DTV broadcast content will not be indiscriminately redistributed over the Internet, while protecting consumers' ability to view and record video content in a manner to which they have become accustomed.⁴⁴⁴ In a related *Order*, the Commission approved thirteen digital output protection technologies and recording methods under the evaluative criteria established in the *Broadcast Flag Order*, subject to certain conditions.⁴⁴⁵ The certification *Order* reiterates that the Commission's goal is to prevent the indiscriminate redistribution over the Internet of digital broadcast television content, while preserving the use and enjoyment of broadcast content.⁴⁴⁶ The certification *Order* finds that each technology, as approved, is appropriate for use in DTV reception equipment to give effect to the broadcast flag.⁴⁴⁷

92. **DTV Periodic Review.** Also in August 2004, the Commission completed the first part of its *Second Periodic Review* of its rules and policies affecting the conversion to digital television.⁴⁴⁸ The *Report and Order* implements several steps necessary for continued progress in the conversion to DTV.⁴⁴⁹ Among them are channel election procedures; deadlines for replication and maximization; requirements that stations provide PSIP information to facilitate closed captioning, V-chip, channel numbering and other functionality; elimination of the simulcast requirement to permit the transmission of additional innovative programming on broadcast digital channels; clarification of interference protection measures for broadcasters; clarification of digital closed captioning rules; and agreement to consider individual deployments distributed transmission technologies on a case-by-case basis in the interim to a proceeding on the issue.⁴⁵⁰ The Commission continues to work on matters related to the expiration of all broadcast licenses for analog television service on December 31, 2006, and the requirement in the Act that the Commission reclaim the spectrum unless certain conditions set forth in Section 309(j)(14)(B) are met.⁴⁵¹ In order to minimize the disruption to consumers when the switch-over to digital broadcasting occurs, the Media Bureau issued a *Public Notice* in May 2004, seeking comment on the number of households that rely exclusively on over-the-air broadcasting for their television service, and on potential options for minimizing the impact of the switch-over on these and other consumers.⁴⁵²

93. **Public Interest Obligations.** The Commission continues to work on public interest matters related to a 1999 *Notice of Inquiry* on public interest obligations in the digital era, as well as a 2000 *Notice of Proposed Rulemaking* on standardized and enhanced disclosure, both of which were addressed in the *Second Periodic Notice*.⁴⁵³

⁴⁴⁴ *Broadcast Flag Order*, 18 FCC Rcd 23550.

⁴⁴⁵ *Digital Output Protection Technology and Recording Method Certifications*, 19 FCC Rcd 15876 (2004). See *Broadcast Flag Order*, 18 FCC Rcd 23550.

⁴⁴⁶ *Digital Output Protection Technology and Recording Method Certifications*, 19 FCC Rcd 15876.

⁴⁴⁷ *Id.*

⁴⁴⁸ *Second Periodic Review of the Commission's Rules and Policies Affecting the Conversion to Digital Television*, 19 FCC Rcd 18279 (2004) (*Second Periodic Review Report and Order*).

⁴⁴⁹ *Id.*

⁴⁵⁰ *Id.* at 18355-7 ¶¶ 174-178.

⁴⁵¹ 47 U.S.C. § 309(j)(14). This issue will be addressed in the second part of the *Second Periodic Review*. See *Second Periodic Review Report and Order*, 19 FCC Rcd 18285-6 at ¶ 6.

⁴⁵² *Media Bureau Seeks Comment on Over-The-Air Broadcast Television Viewers*, 19 FCC Rcd 9468 (2004).

⁴⁵³ *Public Interest Obligations of TV Broadcast Licensees*, 14 FCC Rcd 21633 (1999) (*Broadcast Public Interest NOI*); *Standardized and Enhanced Disclosure Requirements for Television Broadcast Licensee Public Interest Obligations*, 15 FCC Rcd 19816 (2000) (*DTV Public Interest Form NPRM*).

94. **Children's Programming.** In September 2004, the Commission resolved a number of issues regarding the obligation of television broadcasters to serve children in their audience.⁴⁵⁴ The *Report and Order* addresses the obligation of television broadcast licensees to provide educational and informational programming and to protect children from excessive and inappropriate commercial messages. Although some of the rules and policies adopted apply to both analog and digital broadcasters, the *Report and Order* focuses on the application of children's television obligations to DTV broadcasting.⁴⁵⁵

95. **Low-Power Television and Television Translators.** In September 2004, the Commission established rules to allow for the digital conversion of low power television (*LPTV Rules*) and television translator systems.⁴⁵⁶ The *Report and Order* adopts definitions and permissible use provisions for DTV translator and LPTV stations to mirror the analog operation of these stations.⁴⁵⁷ The *Report and Order* furthers progress in the nationwide DTV transition, as LPTV and translator stations deliver over-the-air television service to millions of viewers in rural areas and discrete urban communities.⁴⁵⁸

96. **Ancillary and Supplementary Services.** In 2003, the Commission also released a *Public Notice* relating to the requirement that each commercial and noncommercial educational DTV broadcast station licensee to annually report whether its station provided ancillary or supplementary services at any time during the twelve-month period preceding September 30, 2003, using Form 317 (*Annual DTV Ancillary/Supplementary Services Report for Digital Televisions Stations*).⁴⁵⁹ Form 317 was created pursuant to the statutory guidelines set forth in Section 336 of the Communications Act, which among other things, requires that the Commission ensure that licenses for advanced television services are consistent with the public interest, convenience and necessity; that the Commission collect fees from providers of ancillary or supplementary services to "recover for the public, a portion of the value of the public spectrum resource made available for commercial use. . ."; and to report to Congress on the implementation of the program required by Section 336(e).⁴⁶⁰

d. Educational Efforts

97. In addition to undertaking rulemaking actions to speed the digital transition, the Commission is undertaking a concerted consumer education effort. As of May 2004, only about 37 percent of all adults were somewhat or very familiar with HDTV, while about 87 percent of all adults in TV households were vaguely aware of HDTV.⁴⁶¹ To increase public awareness, on October 4, 2004, the Commission announced a DTV consumer education initiative.⁴⁶² The campaign is designed to inform the public about the DTV transition, and provide resources regarding the availability of HD and other digital programming, as well as to provide information on consumer equipment and retail outlets. A new FCC

⁴⁵⁴ *Children's Programming Obligations of Digital Television Broadcasters*, 19 FCC Rcd 22943 (2004).

⁴⁵⁵ *Id.*

⁴⁵⁶ *Amendment of Parts 73 and 74 of the Commission's Rules to Establish Rules for Digital Low Power Television, Television Translator, and Television Booster Stations and to Amend Rules for Digital Class A Television Stations*, 19 FCC Rcd 19331 (2004) (*LPTV Report and Order*).

⁴⁵⁷ *Id.*

⁴⁵⁸ *Id.*

⁴⁵⁹ *Filing of FCC Annual DTV Ancillary/Supplementary Services Report*, 18 FCC Rcd 23972 (2003).

⁴⁶⁰ 47 U.S.C. § 336 (a), (e).

⁴⁶¹ CTAM, *HDTV: Consumers Getting the Picture*, CTAM Pulse, May/June 2004, at 2.

⁴⁶² *Chairman Powell Announces Major DTV Consumer Education Initiative* (FCC News Release), Oct. 4, 2004; *Chairman Powell to Kickoff Consumer Education Initiative on Transition to Digital* (press release), Sept. 28, 2004.

Internet web portal was created to serve as a one-stop source of information on the transition.⁴⁶³ The announcement of the web portal was followed by a public forum that discussed HD content that is now, or soon will be available to consumers, and how consumers access this content.⁴⁶⁴

98. The Commission also announced a joint effort with CEA and Consumer Electronics Retail Coalition (CERC) on the creation and distribution of a DTV Tip Sheet that describes digital television equipment and provides a glossary of common DTV terms.⁴⁶⁵ The tip sheet also explains that TV sets with only analog tuners will need a separate converter box in the future to receive over-the-air signals after broadcast stations turn off their analog signals.

99. In addition to its efforts with the Commission, CEA is working by itself and with retailers and cable companies to improve retailer and public knowledge of the transition. In its comments to this *Report*, CEA urges that more efforts throughout the industry are needed.⁴⁶⁶ On its websites, CEA offers a wide range of information for consumers, retailers, and industry participants.⁴⁶⁷ CEA also publishes numerous educational brochures and leaflets for consumers and retailers alike.⁴⁶⁸ Among the materials CEA offers are several point-of-sale brochures that retailers can customize and distribute to consumers; a two-sided reference sheet for sales persons to use as a pocket guide when conversing with consumers; several direct-to-consumer print guides including: *HDTV: A Consumer's Guide to the Wonderful World of HDTV*; a *TV Guide* insert called *TV Guide Advetorial*, both of which explain HDTV to consumers; and *HDTV Guide*, which provides lists of DTV products, programming and cable carriage currently available.⁴⁶⁹ CEA also produces educational DVDs jointly with Comcast for use by retail outlets to educate employees, as well as nationally pre-packaged video and radio news releases on the issue of DTV, and an online training program for DTV retailers. CEA also convenes conferences with local retailers, broadcasters and cable executives to discuss the DTV transition. This program has visited more than 25 television markets and four major buying groups.⁴⁷⁰ CEA is also an exhibitor at home and trade shows, and conducts a "Media Tour" which visits 75 cities each year.⁴⁷¹

100. CERC and its board member companies, Best Buy, Circuit City, Radio Shack, and Tweeter, conduct joint HDTV promotions with MVPDs and the Discovery Channel to educate consumers about DTV. CERC and its members also distribute materials directly to consumers, including advertising supplements, educational brochures, home theater product catalogs, and web portals. For example, Best Buy has issued information on DTV and HDTV, including a product primer and product descriptions.⁴⁷² Best Buy, Tweeter and Circuit City all offer "research guides" on their websites that provide basic

⁴⁶³ *Digital Television*, <http://www.dtv.gov>.

⁴⁶⁴ *Chairman Powell Announces Major DTV Consumer Education Initiative* (FCC News Release) Oct. 4, 2004.

⁴⁶⁵ *Id.*

⁴⁶⁶ CEA Comments at 6.

⁴⁶⁷ *Id.* See CEA, at http://www.ce.org/about_cea/cea_initiatives/viewInitiativesOverview.asp?title=Transition%20to%20Digital%20Television&name=269 (visited Jan. 14, 2005).

⁴⁶⁸ CEA Comments at 7.

⁴⁶⁹ See CEA, at http://www.ce.org/about_cea/cea_initiatives/viewInitiativesOverview.asp?title=Transition%20to%20Digital%20Television&name=269 (visited Jan. 14, 2005).

⁴⁷⁰ *Id.*

⁴⁷¹ *Id.*

⁴⁷² Best Buy, *Best Buy Simplifies High-Definition For Consumers* (press release), Feb. 5, 2004.

information on HDTV, DTV, and the different types of video monitors currently available to consumers.⁴⁷³

101. NCTA offers information on its website regarding cable operator offerings of DTV, and an overview on digital cable that explains the difference between digital cable and HDTV.⁴⁷⁴ CTAM, the cable industry marketing association, conducts a consumer awareness study annually to examine consumer awareness and familiarity with HDTV, products and features of DTV sets and HDTV sets, knowledge of HDTV programming, and HDTV programming preferences.⁴⁷⁵ NAB operates a website called *Digital Zone*, dedicated to providing consumers access to information about the broadcast DTV transition.⁴⁷⁶ The site includes tips for purchase of a digital set, diagrams explaining the difference between analog and digital television, information on DTV in local markets, and information on legislative and regulatory issues. In addition there is a Frequently Asked Questions section, and a Station Guide. NAB also publishes a newsletter entitled *Destination Digital* which is available on its website as well.⁴⁷⁷

102. SBCA indicates that the DBS industry is promoting HD through the offering of HD receivers and HD TV set packages and by offering special equipment packages to upgrade current customers to HD.⁴⁷⁸ SBCA says that it has worked with members of Congress to be able to provide distant DTV signals to consumers in areas not served by DTV.⁴⁷⁹ It has also worked with retailers to educate them on HDTV over DBS, and runs an advertising campaign to explain the benefits to consumers of HD.⁴⁸⁰

103. Individual companies are also taking steps to educate the public. Comcast says it heavily promotes HDTV through print ads, advertising availabilities on its own cable systems, and through a joint marketing campaign with CTAM, the cable industry's marketing association.⁴⁸¹ Comcast also has a team traveling throughout the United States, visiting retail stores to work with retailers at the point of sale and place advertisements in the stores.⁴⁸² Sony and Cox recently conducted a joint demonstration of HDTV at San Diego's baseball park, and Sony sponsored the HD broadcast of the Olympics.⁴⁸³ EchoStar says it

⁴⁷³ Best Buy, *HDTV Information Center*, at <http://www.bestbuy.com/site/olspage.jsp?id=pcmcat8400050000&type=category> (visited Jan. 14, 2005); Tweeter Home Entertainment Group, at <http://www.tweeter.com/info/index.jsp?categoryId=1198415&infoPath=1139222> (visited Jan. 14, 2005); Circuit City Stores, Inc., at <http://www.circuitcity.com/rpsm/cat/-12867/edOid/105585/rpem/ccd/lookLearn.do> (visited Jan. 14, 2005).

⁴⁷⁴ NCTA, <http://www.ncta.com/Docs/PageContent.cfm?pageID=91>; <http://www.ncta.com/Docs/PageContent.cfm?pageID=101>; <http://www.ncta.com/Docs/PageContent.cfm?pageID=104>; <http://www.ncta.com/images/HDTVkit-Programming-Final3.pdf> (visited Jan. 14, 2005).

⁴⁷⁵ CTAM, *HDTV: Consumers Getting the Picture*, at <http://www.ctam.com/research/> (visited Jan. 14, 2005).

⁴⁷⁶ NAB, http://www.digitaltvzone.com/hdtv_programs_on_air/index.html (visited Jan. 14, 2005).

⁴⁷⁷ NAB, <http://www.nab.org/Newsroom/Issues/digitaltv/DDTV/ddtv.asp>; <http://www.nab.org/Newsroom/Issues/digitaltv/default.asp> (visited Jan. 14, 2005).

⁴⁷⁸ SBCA Comments at 12.

⁴⁷⁹ *Id.*

⁴⁸⁰ *Id.*

⁴⁸¹ Comcast Corp., at <http://www.comcast.com> (visited Jan. 14, 2005).

⁴⁸² *Id.*

⁴⁸³ *Cox, Sony, and Padres Play Ball*, Show Biz Data.com, July 6, 2004. The Padres have installed 250 Sony HDTV sets throughout Petco Park, while Cox has bought dozens of additional Sony sets to give away during Padres games. In addition, under an arrangement between Sony and Cox, San Diego consumers who buy a Sony HDTV set, receive (continued....)

uses mailers, commercials on its systems, and its website to disseminate information. It also utilizes an information truck at major events, and run seminars and workshops in retail locations to educate sales associates. Sinclair Broadcast Group Inc. has developed a series of public service announcements promoting HDTV on free television.⁴⁸⁴

E. Wireless Cable Systems

104. Wireless cable systems use Multipoint Distribution Service (MDS) and Instructional Television Fixed Service (ITFS) frequencies in the 2 GHz band to transmit video programming and provide broadband services to residential subscribers.⁴⁸⁵ While these services were originally designed for the delivery of multichannel video programming, over the past several years licensees have focused their operations instead on providing two-way high-speed Internet access services. The number of wireless cable subscribers has declined steadily from a peak of 1.2 million in 1996 to approximately 200,000 as of April 2004.⁴⁸⁶ Thus, wireless cable systems provide video competition to incumbent cable operators only on a limited basis.

105. In July 2004, the Commission issued a *Report and Order and Further Notice of Proposed Rulemaking (MDS/ITFS Order)* making several significant changes to the rules governing the MDS and ITFS bands, in order to provide greater flexibility and a more efficient band plan.⁴⁸⁷ The new band plan for 2495-2690 MHz eliminates non-contiguous channel use by MDS and ITFS licensees and creates distinct band segments for operations such as video transmission and two-way fixed and mobile broadband applications. The *MDS/ITFS Order* also renamed the MDS and ITFS services the Broadband Radio Service (BRS) and Educational Broadband Service (EBS), respectively. In addition, the *MDS/ITFS Order* modified the original MDS-ITFS band plan by adding four MHz of spectrum at 2496-2500 MHz in order to provide room for the relocation of the MDS Channels 1 and 2, currently located in the 2.1 GHz band. The *MDS/ITFS Order* also established simpler and more flexible rules for licensees, including geographic area licensing and the ability to deploy the technology of their choice. The *MDS/ITFS Order* also lifted all non-statutory eligibility restrictions on BRS licenses, including those applicable to cable operators; however, cable operators are still prohibited from providing multichannel video programming distribution services using BRS licenses. In addition, the rules limiting EBS licenses to qualified educational institutions remain in effect. EBS licensees may continue to lease their spectrum to BRS licensees. Finally, the *MDS/ITFS Order* established a three-year plan for transitioning to the new band plan.

106. BRS and EBS licensees continue to focus their operations on delivering wireless broadband services rather than multichannel video service. Of the three largest BRS licensees - Nextel, Sprint, and BellSouth - BellSouth continues to provide video programming in the areas where it holds MMDS/BRS and ITFS/EBS licenses.⁴⁸⁸ These three BRS licensees also have significant mobile wireless

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12 months of free HDTV programming from Cox. Sony, in turn, has purchased ads on Cox's high-definition channel, which carries 104 Padres games. *Id.*

⁴⁸⁴ *Sinclair Launches HDTV PSA Campaign*, BROADCASTING & CABLE TV FAX, Aug. 27, 2004, at 1.

⁴⁸⁵ This delivery technology also is known as multichannel multipoint distribution service (MMDS).

⁴⁸⁶ NCTA Comments at 7.

⁴⁸⁷ *Amendment of Parts 1, 21, 73, and 74 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands*, 19 FCC Rcd 14165 (2004).

⁴⁸⁸ BellSouth Comments at 2. BellSouth currently provides cable service in 14 franchise areas in Alabama, Florida and Georgia. Comments of BellSouth Corp. and BellSouth Wireless Cable, Inc. in *Amendment of Parts 1, 21, 73*,

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operations in the cellular, broadband PCS, and Specialized Mobile Radio (SMR) bands. Nextel completed its acquisition of BRS licenses held by WorldCom in April 2004, and, in January 2004, filed applications with the FCC to acquire BRS licenses held by Nucentrix.⁴⁸⁹ In April 2004, Nextel began offering wireless broadband service in Raleigh-Durham, North Carolina.⁴⁹⁰ While the company is reportedly using broadband PCS spectrum for the Raleigh deployment, Nextel has stated that it may use its BRS licenses to deploy service to additional markets in the future.⁴⁹¹ Finally, in June 2004, a new wireless broadband company, Clearwire, announced plans to provide mobile broadband service in Jacksonville, Florida during 2004 using equipment and spectrum leased from EBS licensees. Clearwire plans to launch the mobile broadband service in additional U.S. markets over the next year.⁴⁹²

107. While BRS and EBS licensees continue to focus on delivering high-speed Internet access, Sprint is now offering two different video services on its mobile telephones. For about \$10 a month, Sprint customers can receive either real-time programming from a variety of networks on "MobiTV" or, specially produced short clips from major networks on the "Sprint TV" service.⁴⁹³ MobiTV was offering news content, including the first presidential debate, on three different channels, ABC News Now, C-SPAN and C-SPAN2.⁴⁹⁴ These mobile telephones do not actually have traditional television receivers in them. The television programs are "streamed" onto the phones via the Internet from servers that first convert the television signals into digital files.⁴⁹⁵ Both services display video at six to 15 frames per second.⁴⁹⁶ Sprint plans to rollout a much faster mobile telephone technology called EV-DO, which will be as fast as some wired home DSL connections.⁴⁹⁷

F. Private Cable Systems

108. Private cable operators (PCOs), also known as satellite master antenna television (SMATV) systems, are video distribution facilities that use closed transmission paths without using any public right-of-way.⁴⁹⁸ PCOs acquire video programming and distribute it via terrestrial wiring in urban

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and 74 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands, 19 FCC Rcd 14165 (2004).

⁴⁸⁹ *Applications to Assign Wireless Licenses from WorldCom, Inc. (Debtor-in-Possession) to Nextel Spectrum Acquisition Corp.*, 19 FCC Rcd 6232 (2004); *Nucentrix Spectrum Resources, Inc. (Debtor-in-Possession) Seeks FCC Consent to the Assignment of Licenses to Nextel Spectrum Acquisition Corp.*, 19 FCC Rcd 2893 (2004). See also 2003 Report, 19 FCC Rcd at 1664 ¶ 87.

⁴⁹⁰ Nextel Corp., *Nextel Expands Successful Broadband Trial to Include Paying Customers and Larger Coverage Area* (press release), Apr. 14, 2004.

⁴⁹¹ *Wireless*, COMM. DAILY, Feb. 9, 2004; Transcript, *Event Brief of Nextel Communications Earnings Conference Call - Final*, FD (FAIR DISCLOSURE) WIRE, July 21, 2004 (quoting Barry West, Executive Vice President and Chief Technology Officer, Nextel Communications).

⁴⁹² Clearwire Corp., *Wireless Pioneer Craig McCaw Launches Clearwire; Broadband Wireless Venture to Improve the Availability and Consumer Satisfaction of Residential Phone and Data Services* (press release), June 2, 2004.

⁴⁹³ Walter S. Mossberg, *Watching TV on Your Cellphone*, WALL STREET JOURNAL, Sept. 1, 2004, at D7.

⁴⁹⁴ *Debates Make Way to VOD, Cell Phones*, MULTICHANNEL NEWS, Sept. 30, 2004, at 1.

⁴⁹⁵ Walter S. Mossberg, *Watching TV on Your Cellphone*, WALL STREET JOURNAL, Sept. 1, 2004, at D7.

⁴⁹⁶ Video is best viewed at 24-30 frames per second. *Id.*

⁴⁹⁷ *Id.*

⁴⁹⁸ 1996 Act, sec. 301(a)(2), 47 U.S.C. § 522(7). In addition, private cable and SMATV operators: (a) do not pay franchise and Federal Communications Commission subscriber fees; (b) are not obligated to pass every resident in a

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and suburban multiple dwelling units (MDUs), such as apartments and condominiums, and commercial multiple tenant units (MTUs), including hotels and office buildings. Traditionally, PCOs received nonbroadcast programming from resellers called aggregators using satellite master antenna systems atop the buildings they serve. PCOs usually combine this nonbroadcast video programming with local broadcast television signals that they receive using master antennas. Thus, the packages PCOs provide their subscribers are comparable to those of cable systems, and they directly compete with franchised cable operators.

109. Some PCOs are now partnering with DIRECTV and EchoStar to offer their customers a hybrid analog and digital video product.⁴⁹⁹ Recent reports indicate that MDU builders and owners want more control over the design and operation of their communities, and PCOs provide an approach to MDUs that franchised cable operators cannot or will not provide, including revenue sharing. Franchised cable operators do not generally provide a bundled video, data, and voice service to a specific MDU property because the large cable operators tend to use uniform business models to serve all of their subscribers across the nation, while a PCO can almost always create a service to satisfy MDU demand.⁵⁰⁰

110. Currently, there are approximately 135 members in the Independent Multi-Family Communications Council (IMCC), the trade association that represents PCOs and MDUs.⁵⁰¹ This year, the PCO industry has begun rebounding from a recent economic downturn. New capital is available to PCOs, and interest in IMCC has increased.⁵⁰² PCOs range in size from large operators serving customers throughout the entire United States, to small operators that serve MDUs in as few as three communities. PCOs currently serve 1.1 million customers, down 100,000 subscribers from last year.⁵⁰³

111. In January 2003, the Commission issued the *Second Report and Order* on inside wiring, which made four revisions to its cable inside wiring rules.⁵⁰⁴ The *Order* specified that: (1) wiring located behind sheet rock is “physically inaccessible” for purposes of the home run wiring rules; (2) incumbent providers must allow access to their wiring before the termination of services; (3) incumbent operators must share space in molding with competitors; and (4) the rules apply to all programming providers, including both franchised cable operators and PCOs. As a result of this decision, wiring installed behind sheet rock that runs from the customer’s unit to the demarcation point is “inside wiring”, and is under the customer’s control, instead of “home run wiring” which is under the provider’s control. The customer may use this wiring to receive service from another provider.⁵⁰⁵ The rules governing the unit-by-unit disposition of inside wiring can be invoked when the MSO has no legally enforceable right to maintain the wiring dedicated to a particular subscriber’s residence in an MDU. Under this scenario, a competing

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given area; (c) are not subject to rate regulation; and (d) are not subject to must carry and local government access obligations. *1997 Report*, 13 FCC Rcd at 1085 n.296.

⁴⁹⁹ Don Kent, *USDTV: Are They A Competitive Threat to Private Cable Operators?*, BROADBAND PROPERTIES, May 2004, at 6.

⁵⁰⁰ Rich Muller, *Outside the Box: It's Back! The MDU Biz Returns To Satellite*, SKYREPORT, June 23, 2004, at 4.

⁵⁰¹ In 2003, we reported that IMCC had 250 members operating throughout the United States. See *2003 Report*, 19 FCC Rcd at 1666 ¶ 90. For a list of members, see Independent Multi-Family Communications Council’s website at <http://www.imcc-online.org/membership> (visited Aug. 18, 2004).

⁵⁰² Telephone conversation with Bill Burhop, Executive Director, IMCC, Oct. 5, 2004.

⁵⁰³ NCTA Comments at 7.

⁵⁰⁴ *Telecommunications Services Inside Wiring, Customer Premises Equipment, Implementation of the Cable Television Consumer Protection and Competition Act of 1992; Cable Home Wiring*, 18 FCC Rcd 1342 (2003) (*Cable Home Wiring*).

⁵⁰⁵ *Id.* at 1362 ¶¶ 52, 53.

video provider may use the existing (home run) wiring to provide service to subscribers who choose a competitor's service over that of the incumbent MSO.⁵⁰⁶ On February 17, 2004, the D. C. Circuit Court of Appeals held that the Commission's modification of the rules was not supported by substantial evidence and the case was remanded.⁵⁰⁷ In response to the court's decision, the Commission issued a *Further Notice of Proposed Rulemaking* to examine the issue raised by this remand.⁵⁰⁸

112. There have been several recent challenges to the inside wiring rules. In October 2002, a New York District Court ruled that so long as the incumbent MSO retains at least one subscriber in an MDU, the owner may not invoke the FCC's unit-by-unit inside wiring rule to allow a competing PCO access to home run wiring (*CSC Holdings*).⁵⁰⁹ In August 2003, a Kansas District Court rejected the *CSC Holdings* decision in *Time Warner Entertainment Co., L.P. v. Everest Midwest Licensee, L.L.P.* and held that the fact that the incumbent MSO has at least one subscriber in the building does not bar a competing PCO from using home run wiring dedicated to MDU residents who choose the PCO's service.⁵¹⁰ On August 21, 2003, in *CoxCom v. Picerne Real Estate Group*, the Rhode Island Superior Court ruled that the fact that the MSO retains subscribers in the MDU does not block the MDU owner from allowing a PCO to use the existing wiring to serve other residents.⁵¹¹

G. Other Entrants

1. Internet Video

113. Over the past year, video provided over the Internet has grown and promises to become an increasingly strong participant in the market for the delivery of video programming.⁵¹² In addition to video provided over the web, video is now being provided to subscribers' televisions set using Internet Protocol (known as IPTV).

114. *Streaming Video*. Most instances of video streamed over the web (sent from the content provider to the subscriber in real-time) however, are still not of broadcast quality.⁵¹³ Streaming video is

⁵⁰⁶ 47 C.F.R. § 76.804(a)(b).

⁵⁰⁷ *National Cable & Telecommunications Association v. F.C.C.*, 89 Fed. Appx. 743, 2004 WL 335201 (D.C. Cir. Feb. 17, 2004) (NO. 03-1140).

⁵⁰⁸ See *Telecommunications Services Inside Wiring, Customer Premises Equipment*, 19 FCC Rcd 1498 (2004).

⁵⁰⁹ *CSC Holdings, Inc. v. Westchester Terrace*, 235 F. Supp. 2d 243 (S.D.N.Y. 2002).

⁵¹⁰ *Time Warner Entertainment Co., L.P. v. Everest Midwest Licensee, L.L.C.*, 381 F.3d 1039 (10th Cir. (Kan.), Aug. 27, 2004) No. 03-3005.

⁵¹¹ *CoxCom, Inc. v. Picerne Real Estate Group*, 2003 WL 22048781 (R.I. Super. Aug. 21, 2003) (NO. CIV.A. PB 02-1537).

⁵¹² *Internet TV on the Way, Powell Says*, BROADCASTING AND CABLE, Sept. 20, 2004, at 26; Tom Wolzien, Mark Mackenzie, Disney, AOL Show Broadband Video Progress, Bernstein Research, Mar. 5, 2004. A panel of streaming media companies attending the annual convention of the National Association of Broadcasters insists that streaming media is not currently competing with over-the-air broadcasters. *New Technologies*, COMM. DAILY, Apr. 23, 2004. Comcast indicates in its comments that the MVPD service delivered by video streaming provides consumers with additional options and, therefore, adds to competition. Comcast Reply Comments at 4-5.

⁵¹³ Video viewed on a personal computer, while larger in size and better in quality than a few years ago, is still confined to a relatively small portion of the screen, and still offers a very low quality picture as compared with traditional broadcasting. Lee Gomes, *Web TV Is Changing The Way Programming Is Watched and Sold*, WALL STREET JOURNAL, May 10, 2004, at B1; see also *Net TV: Next Killer Ap?*, BROADCASTING AND CABLE TV FAX, Sept. 16, 2004, at 3; *Future Gazing: IPTV High on Powell's Radar*, CABLEFAX DAILY, Sept. 16, 2004, at 1; Paul Andrews, *Web's Video Progress is Slow Motion*, SEATTLE TIMES, July 26, 2004; John Borland and Jim Hu, *A Life-Saving Technology*, CNET NEWS.COM, July 26, 2004.

currently most viable when delivered over broadband networks, but some industry watchers believe that it will only become a fully competitive consumer application if connection speeds significantly increase over those achieved over cable and DSL broadband.⁵¹⁴ Today, some high-quality streaming applications are being transmitted over the Internet2 network, which can achieve very high speeds of transfer.⁵¹⁵ Internet2 was developed by a consortium of universities and technology companies in 1996 to provide higher connection speeds and a backbone of 10 Gbps.⁵¹⁶ By comparison, most of the public Internet today uses 2.5 Gbps links.⁵¹⁷ Many technologists believe Internet2 has the high-bandwidth, low-latency and high-reliability needed for such applications as distance learning and telemedicine where high quality is necessary.⁵¹⁸ The commercial deployment of applications over Internet2 has been slow because limitations remain in the connection between the home and the provider's central office.

115. Nevertheless, the overall number of homes with access to the Internet continues to grow, as does the number of Americans who access the Internet via a high-speed broadband connection as well as those who access streaming video content via the Internet. As of June 2004, there were approximately 30 million high-speed Internet access subscribers out of a total of about 64 million residential Internet subscription households.⁵¹⁹ In addition, as of January 2004, an average of 12 percent of all Americans watched some form of streaming video in the past month and approximately 23 percent of Americans had accessed streaming IPTV content at least once before.⁵²⁰

116. RealPlayer continues to offer a variety of streaming video products, including news clips and music videos.⁵²¹ RealNetworks has been providing ABCNews content to its subscribers since 2002, and recently signed a deal with ABC.com to provide video clips of ABC television shows to RealNetwork's SuperPass subscribers.⁵²² Comcast offers ABC News.com and children's programming content to its high-speed Internet subscribers for no additional cost.⁵²³ MSN signed a deal with CinemaNow to provide movie information, reviews and trailers to its subscribers.⁵²⁴ America Online (AOL) and CNN have an agreement that provides AOL subscribers with free access to streaming service,

⁵¹⁴ *Future Gazing: IPTV High on Powell's Radar*, CABLEFAX DAILY, Sept. 16, 2004, at 1; see May Wong, *Internet Video Headed for Homes*, ROCKY MOUNTAIN NEWS, Aug. 30, 2004. Some industry participants insist that Internet video will need speeds of 100 Mbps or more to the home before it will impact consumers. John Borland and Jim Hu, *A Life-Saving Technology*, CNET NEWS.COM, July 26, 2004. In Asia, connection speeds are such that the web can be used for standard, full-screen viewing. In Hong Kong, in particular, web-television providers offer subscribers a service similar to cable and satellite television services. Lee Gomes, *Web TV Is Changing The Way Programming Is Watched and Sold*, WALL STREET JOURNAL, May 10, 2004, at B1.

⁵¹⁵ John Borland and Jim Hu, *A Life-Saving Technology*, CNET NEWS.COM, July 26, 2004.

⁵¹⁶ Marguerite Reardon, *Internet2: 2004 and Beyond*, CNET NEWS.COM, Aug. 24, 2004.

⁵¹⁷ *Id.*

⁵¹⁸ *Id.*

⁵¹⁹ See High-Speed Services Report at Table 3.

⁵²⁰ Arbitron, Inc., *Internet and Multimedia 12: The Value of Internet Broadcasting Advertising*, Sept. 3, 2003, at 5.

⁵²¹ Comcast Comments at 14-16.

⁵²² Jim Hu, *ABC.com to Air on RealNetworks' SuperPass*, CNET NEWS.COM, Aug. 12, 2004; *RealNetworks, MSN sign VOD Deals*, CTAM SMARTBrief, Aug. 13, 2004.

⁵²³ Frank Aherns, *Comcast Starts Disney Delivery Via Internet*, WASHINGTON POST, July 21, 2004, at E1; Reuters, *Comcast and Disney in High-Speed Internet Adventure*, NEW YORK TIMES, July 21, 2004; Peter Grant, *Comcast, Disney Team Up on Internet Deal*, WALL STREET JOURNAL, July 21, 2004, at B1.

⁵²⁴ *RealNetworks, MSN sign VOD Deals*, CTAM SMARTBRIEF, Aug. 13, 2004.

CNN NewsPass, which provides access to dozens of video clips and reports.⁵²⁵ AOL also made a deal with Warner Brothers TV to have the WB's new fall series *Jack and Bobby* premiere on the Internet to AOL's broadband subscribers.⁵²⁶ In the summer of 2004, NBC offered archived video of the 2004 Olympics, where users were able to sort through hours of footage by sport and view highlights from the games, as a complement to their broadcast of the games.⁵²⁷ Two major broadcast networks, CBS and ABC, provided full coverage of both the Democratic and Republican political conventions over the Internet.⁵²⁸ CBS provided feeds of 37 NCAA basketball tournament games to be included in AOL's basic Internet service, and as a stand-alone subscription.⁵²⁹ Similarly, SportsLine.com offered live webcasts of early-round NCAA basketball tournament games for a \$9.95 subscription fee; the service allowed subscribers to watch multiple games simultaneously, though viewers are prevented from having access to games broadcast on their local CBS affiliate.⁵³⁰ As we have reported in the past, Major League Baseball makes its video content available on the Internet.⁵³¹

117. AOL announced its intent to provide closed captioning for select streaming media content.⁵³² SnapStream Media offers a product called Beyond TV 3 which provides software and hardware for a personal computer that allows for its use as a DVR.⁵³³ America Online updated its instant messaging software in 2004 to include video conferencing on its IM client; in an agreement with Apple Computer, AOL and iChat users will be able to video conference interoperably.⁵³⁴

118. *Downloadable Video.* Because most Internet connections do not yet reliably support data speeds needed to view broadcast-quality video as it is streamed, technologists expect that most near term use of the web to provide video will be for downloadable video.⁵³⁵ As we reported last year, Movielink

⁵²⁵ Tom Wolzien and Mark Mackenzie, *Disney, AOL Show Broadband Video Progress*, Bernstein Research, Mar. 5, 2004.

⁵²⁶ Tom Wolzien and Mark Mackenzie, *Internet Bypass Alternative to Cable's Content-Delivery Bundle*, Bernstein Research, Apr. 23, 2004.

⁵²⁷ Kendra Mayfield, *Olympics: Coming to a PC Near You*, WIRED NEWS, July 12, 2004.

⁵²⁸ Tom Wolzien, Michael Nathanson, Craig Moffett, Mark Mackenzie, Drew Borst, and Amelia Wong, *Weekend Media Blast #29: Networks Play Shrewd Politics With Internet Bypass*, Bernstein Research, July 16, 2004.

⁵²⁹ Tom Wolzien and Mark Mackenzie, *Internet Bypass Alternative to Cable's Content-Delivery Bundle*, Bernstein Research, Apr. 23, 2004.

⁵³⁰ Carl Bialik, *SportsLine to Offer Webcasts In 'March Madness' Package*, WALL STREET JOURNAL, Mar. 16, 2004, at D4.

⁵³¹ See 2003 Report, 19 FCC Rod at 1675 ¶106; Comcast Comments at 14-16; Lee Gomes, *Web TV Is Changing The Way Programming Is Watched and Sold*, WALL STREET JOURNAL, May 10, 2004 at B1; Jim Hu, *Microsoft, America Online to Play MLB Games*, CNET NEWS.COM, Mar. 22, 2004; Tom Wolzien and Mark Mackenzie, *Internet Bypass Alternative to Cable's Content-Delivery Bundle*, Bernstein Research, Apr. 23, 2004.

⁵³² *New Technologies*, COMM. DAILY, Oct. 10, 2003, at 9.

⁵³³ Walter S. Mossberg, *Cheaper Than TiVo: Souping Up Your Computer*, WALL STREET JOURNAL, Apr. 14, 2004. Picture quality is not considered to be comparable to broadcast quality video.

⁵³⁴ Jim Hu, *AOL Links With Apple on Video IM*, CNET NEWS.COM, Feb. 5, 2004. Microsoft also announced a deal that will allow users of its corporate instant-messaging software to communicate with services from competitors AOL Instant Messenger and Yahoo Messenger. Daniel Nasaw, *Microsoft to Link Message System With Yahoo, AOL*, WALL STREET JOURNAL, July 15, 2004, at B5.

⁵³⁵ See John Markoff, *New Service by TiVo Will Build Bridges From Internet to TV*, NEW YORK TIMES, June 9, 2004.

allows users to download movies to computer hard drives and store it for as long as 30 days, for a fee.⁵³⁶ In late 2003, SBC joined Movielink to create a co-branded website of video downloads for subscribers to SBC Yahoo DSL.⁵³⁷ America Online teamed up with Movielink in January 2004 for a promotion that offered its members full-feature film downloads through Movielink for 99 cents each.⁵³⁸ In May 2004, Charter made an agreement with Movielink that offers movies to Charter's broadband subscribers.⁵³⁹ Real Networks and Starz Encore Group launched an Internet movie subscription service called Starz! Ticket on Real Movies, which gives monthly subscribers access to about 100 movies available for download onto their computer hard drives.⁵⁴⁰ Similarly, Disney's ESPN offers a service available for free through ESPN.com called ESPNMotion, which automatically downloads video using Microsoft's Media Player, including commercials, into the user's computer, and then advises the user when the video is ready.⁵⁴¹ In addition, portable devices have become available that download content stored on the personal computer and in some cases record programs directly from a television or VCR.⁵⁴² Among those offering the devices are Samsung, Creative Labs, RCA, Archos and Microsoft.

119. *Internet Protocol Television (IPTV)*. In addition to streaming and downloadable video provided over the web, video also is becoming available for download through a high-speed Internet connection directly to a set-top box to be viewed over the television, similar to MVPD video-on-demand services.⁵⁴³ Some industry analysts call this technology "Internet Bypass" or "client-based server players."⁵⁴⁴ In July 2004, TiVo introduced a new set of Internet-based services that allows users to

⁵³⁶ *Antitrust Probe Clears Studios' Online Venture*, LOS ANGELES TIMES, June 4, 2004; see also 2003 Report, 19 FCC Rcd at 1674 ¶ 106. Since our last Report, CinemaNow, a similar service to Movielink, joined the online rental market. Rob Pegoraro, *You Can Rent Movies Online, But Should You?*, WASHINGTON POST, Apr. 4, 2004, at F7.

⁵³⁷ Stefanie Olsen, *SBC Calls Action for Movielink Rentals*, CNET NEWS.COM, Nov. 24, 2003.

⁵³⁸ Comcast Comments at 14-16.

⁵³⁹ Media & Marketing, *Movielink Sets Deal With Charter*, WALL STREET JOURNAL, May 24, 2004.

⁵⁴⁰ Allison Linn, *Online Movie Service To Debut*, WASHINGTON POST, June 14, 2004, at A8; Comcast Comments at 14-16. In past Reports, we noted that to view video over the Internet, the video must be played using a media player. New Java technology now gives browsers the ability to play videos directly on a web page and run from regular servers, obviating the need for a separate media player. Stefanie Olsen and Mike Yamamoto, *Microsoft Just One Factor in Net Pioneer's Chaotic History*, CNET NEWS.COM, Mar. 4, 2004. See 2003 Report, 19 FCC Rcd 1674-5 ¶¶ 106-107; see also 1998 Report, 13 FCC Rcd 24349-50 ¶ 104.

⁵⁴¹ Tom Wolzien, Mark Mackenzie, *Disney, AOL Show Broadband Video Progress*, Bernstein Research, Mar. 5, 2004. Full-screen video is deemed VCR-quality. *Id.*

⁵⁴² Michael Marriott, *Is Portable Video Ready For Its Close-Up?*, NEW YORK TIMES, Sept. 2, 2004; David Colker and Jon Healey, *Portable Video Player Sales in Slow Motion*, LOS ANGELES TIMES, Sept. 2, 2004; Andy Sullivan, *PluggedIn: 'Video iPods' Bring Seinfeld on Subway*, YAHOO! NEWS, Aug. 3, 2004; John Gartner, *Movie, TV Fans Ogle Video To Go*, WIRED NEWS, July 13, 2004; Richard Shim, *Will Consumers Tune into Portable Video?*, CNET NEWS.COM, July 20, 2004. Computers with TV tuner cards or home networks connecting their computer with other home entertainment devices can record TV programs off the air and then download the programs to the portable device.

⁵⁴³ Comcast Reply Comments at 6. Mike Landberg, *Forget A La Carte Cable Idea; The Future Is In Internet TV*, SAN JOSE MERCURY NEWS, July 23, 2004; *Future Gazing: IPTV High on Powell's Radar*, CABLEFAX DAILY, Sept. 16, 2004, at 1; Lorenza Munoz, *Netflix and TiVo Shares Climb*, LOS ANGELES TIMES, Sept. 8, 2004.

⁵⁴⁴ Tom Wolzien, *Media: Shift to Client-Server-Based Internet Bypass Player Could Offset PVR Losses*, Bernstein Research, May 25, 2004. A client-server player is a system for the streaming, downloading, recording and playback of content which may be stored locally on the devices but allows some central control by the provider, such as content updates or software updates. Video content can be downloaded or streamed to the subscriber through a high-speed connection to the Internet. Some industry analysts also call this system of client-server players, "Internet Bypass" or "IB Video." *Id.*

download movies to the hard drives of their TiVo video recorders.⁵⁴⁵ TiVo and Netflix currently are near an agreement that would allow consumers to download movies from Netflix.⁵⁴⁶ SBC and EchoStar are jointly developing their own set-top box with DVR capabilities that will allow users with broadband Internet connections to download movies for a fee.⁵⁴⁷ Akimbo also plans to offer a DVR-like box that plugs into a television set and downloads video programming through a high-speed Internet connection.⁵⁴⁸ Microsoft also is involved in the development of Internet video and other Internet-enhanced MVPD services.⁵⁴⁹ In September 2004, it unveiled the MSN TV Internet receiver for accessing Internet content via the television, including content from sites like Movielink.⁵⁵⁰ In addition to enabling consumers to download content from the Internet, several firms, including TiVo, plan to introduce technology that will allow subscribers to send recorded television shows over the Internet to as many as nine playback devices, provided all of the devices share the same TiVo customer account.⁵⁵¹

2. Home Video Sales and Rentals

120. The sale and rental of home video, including videocassettes and DVDs, are considered part of the video marketplace because they provide services similar to the premium and pay-per-view offerings of MVPDs.⁵⁵² As such, they offer some level of competition to broadcast television, cable television and DBS for the consumer's time and money. Likewise, video-on-demand services provided by cable, DBS, and Internet providers also have emerged as competitive services to home video.⁵⁵³

121. VCR penetration is estimated at 91 percent of TV households in 2004.⁵⁵⁴ DVDs also have made a significant impact on the home video market. As of July 2004, nearly 100 million DVD

⁵⁴⁵ Comcast Comments at 14-16. Mike Landberg, *Forget A La Carte Cable Idea; The Future Is In Internet TV*, SAN JOSE MERCURY NEWS, July 23, 2004.

⁵⁴⁶ *Future Gazing: IPTV High on Powell's Radar*, CABLEFAX DAILY, Sept. 16, 2004, at 1; Lorenza Munoz, *Netflix and TiVo Shares Climb*, LOS ANGELES TIMES, Sept. 8, 2004; John Markoff, *New Service by TiVo Will Build Bridges From Internet to TV*, NEW YORK TIMES, June 9, 2004. Tom Wolzien and Mark Mackenzie, *Internet Bypass Alternative to Cable's Content-Delivery Bundle*, Bernstein Research, Apr. 23, 2004. See paras. 122-123 *infra*.

⁵⁴⁷ Almar Latour, Andy Pasztor, and Peter Grant, *SBC, EchoStar Plot Online Movie Venture*, WALL STREET JOURNAL Aug. 19, 2004, at B1; *In Cahoots*, CABLEFAX Daily, Aug. 20, 2004, at 2. SBC and EchoStar have not yet decided which movie-download service to partner with. *Id.*

⁵⁴⁸ Comcast Comments at 14-16. Mike Landberg, *Forget A La Carte Cable Idea; The Future Is In Internet TV*, SAN JOSE MERCURY NEWS, July 23, 2004.

⁵⁴⁹ Stefanie Olsen and John Borland, *Microsoft Video Tech Aims for Prime time*, CNET NEWS.COM, July 13, 2004.

⁵⁵⁰ *Convergence, Yet Again*, BROADCASTING & CABLE, Sept. 20, 2004, at 10.

⁵⁵¹ Jube Shiver Jr., *FCC Approves TiVo Technology*, LOS ANGELES TIMES, Aug. 5, 2004; Jube Shiver Jr., *FCC Lets TiVo Send Shows Via Internet*, CHICAGO TRIBUNE, Aug. 5, 2004; Paul Davidson, *FCC Lets TiVo Users Send Shows 'Anywhere They Go'*, USA TODAY, at B3. TiVo Inc.'s TiVo Guard is among 13 technologies certified by the Commission to protect digitally transmitted television shows recorded off the air. TiVo says its system can electronically track subscriber activity to ensure that digital content is not widely distributed. *Digital Output Protection Technology and Recording Method Certifications*, 19 FCC Rcd 15876 (2004). See *Broadcast Flag Order*, 18 FCC Rcd 23550 (2003). See also para. 91 *supra*. The Commission's broadcast flag anti-piracy rules cover not just television tuners, but also personal computers and information technology products that are used for off-air digital reception. See *Broadcast Flag Order*, 18 FCC Rcd 23550 (2003).

⁵⁵² See 2003 Report, 19 FCC Rcd at 1675 ¶ 108.

⁵⁵³ See paras. 40-41, 52, 68-69, 118-119 *supra*.

⁵⁵⁴ Television Bureau of Advertising citing Nielsen Media Research, at http://www.tvb.org/nav/build_frameset.asp (visited Jan. 14, 2005).

players had been sold and approximately 70 percent of TV households have a DVD player.⁵⁵⁵ The average cost of a DVD player is \$120, a decline of 13 percent from the previous year.⁵⁵⁶ More than 30,000 titles are available in DVD format for rental or sale, with nearly 30 titles exceeding sales of over five million copies in 2003 alone.⁵⁵⁷ Home video sales significantly exceed movie ticket sales, as households spent \$22.5 billion annually on purchasing and renting DVDs and video cassettes compared with \$9.2 billion at movie theaters.⁵⁵⁸ Sales of DVDs and video cassettes accounted for about 63 percent and rentals accounted for 37 percent of the \$22.5 billion spent on home video.⁵⁵⁹

122. The influence of DVDs is growing. For example, Netflix continues to be the leading online DVD movie rental service with just over two million subscribers as of June 2004, an 80 percent increase over last June.⁵⁶⁰ Other companies, however, have entered the online movie rental business, such as Wal-Mart, which established a similar DVD-by-mail system in June 2003. Blockbuster Online will give subscribers two free rentals each month at its stores as well as access to 25,000 DVDs via the mail.⁵⁶¹ Other DVD mail-delivery upstarts struggle to breakout: DVDBarn in Scottsdale, Arizona; QwickFliks in Rancho Santa Fe, California; and, DVDOvernight.com in Philadelphia.⁵⁶²

123. Another home video technology gaining popularity is the digital video recorder (DVR).⁵⁶³ Introduced in 1999, this device is capable of pausing, recording and rewinding live TV in digital form on an internal hard drive instead of videotape.⁵⁶⁴ DVRs allow users watching recorded programs to fast forward through commercials. About two million DVRs have been sold to date.⁵⁶⁵ Cable and DBS operators have incorporated DVR functionality into their set-top boxes.⁵⁶⁶ For example, Comcast launched DVR service in its New Jersey, Pennsylvania, and Delaware systems, offering subscribers Motorola's single tuner. The service is available for \$9.95 per month.⁵⁶⁷ Cox Cable subscribers will have access to DVR service in more than 95 percent of its markets by the end of 2004.⁵⁶⁸ The largest DVR maker, TiVo, has over one million DIRECTV subscribers and about 800,000 stand-alone customers.⁵⁶⁹ TiVo's DVR is currently offered at \$99 plus a monthly service fee of \$12.95, and is

⁵⁵⁵ See CEA Comments at 5. Other commenters have submitted DVD penetration levels lower than 70 percent. NCTA Comments at 21 project a 65 percent DVD penetration level and Comcast Comments at 16 indicates a 47 percent penetration level.

⁵⁵⁶ See NCTA Comments at 21. Much of the sales of pre-recorded DVDs are a result of the market for ownership of entire prior seasons of broadcast and cable programming.

⁵⁵⁷ *Id.*

⁵⁵⁸ *Id.*

⁵⁵⁹ Comcast Comments at 16.

⁵⁶⁰ *Id.* at 17. Customers go online to rent a movie and the DVD is sent to the home for viewing and then returned through the mail.

⁵⁶¹ David Lieberman, *Blockbuster to Bust into Rent-by-Mail DVD Business*, USA TODAY, Aug. 11, 2004, at B1.

⁵⁶² NCTA Comments at 22.

⁵⁶³ These devices also are referred to as personal video recorders (PVRs).

⁵⁶⁴ See 1999 Report, 15 FCC Rcd at 1035 ¶ 119.

⁵⁶⁵ CEA Comments at 5.

⁵⁶⁶ See paras. 42, 52, 62-69 *supra*.

⁵⁶⁷ See DVR, CABLEFAX DAILY, Aug. 24, 2004, at 1.

⁵⁶⁸ See Cable, COMM. DAILY, July 28, 2004, at 6.

⁵⁶⁹ See Stuart Elliot and Ken Belson, *Stop Me If You've Seen This One Before*, NEW YORK TIMES, Aug. 9, 2004, at C1.

available at retail chains and websites, such as Amazon.com and Target.com.⁵⁷⁰ TiVo and Netflix subscribers will soon be able to download digital movies from the Internet directly to their TiVo set-tops.⁵⁷¹

H. Local Exchange Carriers

124. The 1996 Act amended Section 651 of the Communications Act to permit local telephone common carriers to provide video services in their telephone service areas. The statute permitted common carriers to: (1) provide video programming to subscribers through radio communications under Title III of the Communications Act;⁵⁷² (2) provide transmission of video programming on a common carrier basis under Title II of the Communications Act;⁵⁷³ (3) provide video programming as a cable system under Title VI of the Communications Act;⁵⁷⁴ or (4) provide video programming by means of an open video system ("OVS").⁵⁷⁵

125. Incumbent LEC entry into the MVPD industry remains limited, but recent developments show new signs of LEC interest in providing video services.⁵⁷⁶ In recent months, for example, several major LECs -- Bell South, Qwest, SBC, and Verizon -- have launched joint service with DBS service providers. These services were planned and announced last year. In addition, several LECs have recently reported plans to provide video service via asymmetric digital subscriber line (ADSL), very high-speed digital subscriber line (VDSL), or fiber to the home (FTTH).⁵⁷⁷ These new developments may indicate an acceleration of LEC entry into video services.

126. **Cable Franchises.** Until recently, BellSouth was the only remaining large incumbent LEC to offer video service over franchised cable systems using traditional cable architecture.⁵⁷⁸ It holds 20 cable franchises with the potential to pass 1.4 million homes and provides cable service in 14 of its franchise areas.⁵⁷⁹ Verizon has announced that it has received two franchises to provide cable service in Beaumont, California, and Sachse, Texas, and that it plans to roll out cable services in other areas in 2005.⁵⁸⁰

127. **VDSL, ADSL, FTTP, and FTTN.** Qwest, SBC, and a number of smaller incumbent LECs are offering, or preparing to offer, MVPD service over existing telephone lines using very high-

⁵⁷⁰ *Id.* See also TiVo, at <http://www.tivo.com/0.0.asp> (visited Oct. 27, 2004).

⁵⁷¹ See *New Technologies*, COMM. DAILY, Sept. 9, 2004, at 13. See para. 119 *supra*.

⁵⁷² 47 U.S.C. § 571(a)(1).

⁵⁷³ 47 U.S.C. § 571(a)(2).

⁵⁷⁴ 47 U.S.C. § 571(a)(3).

⁵⁷⁵ 47 U.S.C. § 571(a)(3)-(4). See also para. 71 *supra*.

⁵⁷⁶ 2003 Report, 19 FCC Rcd at 1678 ¶ 114. See also Letter from Stephen Pastorkovich, Director of Business Development, OPATSCO, to Marlene H. Dortch, Secretary, FCC, Nov. 10, 2004, at 2-4, 6-9.

⁵⁷⁷ See *Fourth 706 Report*, 19 FCC Rcd at 20555-57. Some LECs are not deploying full FTTH, but instead are deploying fiber-to-the node (FTTN), which provides fiber facilities to the neighborhood node, and coaxial cable from the neighborhood node to the residence.

⁵⁷⁸ BellSouth Comments at 1-2.

⁵⁷⁹ 2003 Report, 19 FCC Rcd at 1678 ¶ 116. See also 2002 Report, 17 FCC Rcd at 26946 ¶ 96 n.338. Subsequently, Verizon sold these systems to Knology, Inc., a broadband service provider. See Knology, Inc., *Knology Announces Agreement To Purchase Broadband Assets* (press release), July 18, 2003.

⁵⁸⁰ Almar Latour, *Showdown of the Giants*, WALL STREET JOURNAL, Nov. 8, 2004, at B1; *Franchise Score*, CABLEFAX DAILY, Nov. 10, 2004, at 3; *Verizon Franchise*, CABLEFAX DAILY, Dec. 10, 2004, at 2.

speed digital subscriber line (VDSL) or asymmetric digital subscriber line (ADSL) technologies.⁵⁸¹ Qwest offers video, high-speed Internet access and telephone service over existing copper telephone lines using VDSL in the Phoenix, Arizona, metropolitan area and in Denver and Boulder, Colorado, and over a hybrid fiber-coaxial system in Omaha, Nebraska.⁵⁸² Small LECs also continue to deploy VDSL for the purpose of video service delivery. At least 307 rural LECs provide video using coaxial cable, hybrid networks, DSL, or fiber to the premises.⁵⁸³ Small LECs indicate that discriminatory practices, such as exclusive programming contracts, higher prices for programming, and discriminatory pricing, by incumbent cable operators and programmers impede competition in small, rural markets.⁵⁸⁴

128. In June 2004, SBC announced plans to develop both Fiber to the Node (FTTN) and Fiber to the Premises (FTTP) IP networks to deliver video and other services to small business and residential customers.⁵⁸⁵ SBC plans to deliver its video programming to customers using a DSL-based service it calls "Lightspeed."⁵⁸⁶ SBC will not offer the service commercially until year-end 2005, but it is currently testing the service in field trials.⁵⁸⁷ SBC hopes to eventually reach as many as 18 million homes nationwide.⁵⁸⁸ BellSouth has built a fiber network that passes 1.1 million homes with the hopes of offering video services, and it expects to add 200,000 more homes by the end of 2004.⁵⁸⁹ Verizon is currently building an FTTP IP network, and expects to pass one million homes by the end of 2004 and an additional two million homes by the end of 2005, offering a variety of broadband services.⁵⁹⁰ Verizon comments that it supports a deregulatory national broadband policy, and the Commission should adopt open standards that do not favor any particular technology.⁵⁹¹ In this regard, Verizon filed two petitions with the Commission regarding its deployment of fiber-to-the-premises (FTTP) infrastructure.⁵⁹² The first petition requests that the Commission either issue a declaratory ruling regarding broadband service provided via FTTP or, alternatively, waive its common carrier and Title II rules for an interim period in the same manner as currently applied to cable modem services.⁵⁹³ In its second petition, Verizon requests that, in the absence of a declaratory ruling, the Commission should exercise its forbearance

⁵⁸¹ See *Fourth 706 Report*, 19 FCC Rcd at 20555-57.

⁵⁸² Qwest Communications International, Inc., <http://www.qwest.com/residential/products/tvservices/index.html>, (visited Sept. 24, 2004).

⁵⁸³ OPASTCO Reply Comments at 3.

⁵⁸⁴ *Id.* at 4-6.

⁵⁸⁵ SBC Communications Inc., *SBC Communications Announces Advances In Initiative To Develop IP-Based Residential Network For Integrated Video, Internet, VoIP Services* (press release), June 22, 2004; See also *Fourth 706 Report*, 19 FCC Rcd at 20555-57.

⁵⁸⁶ Ken Belson and Matt Richtel, *SBC to Start Project to Send TV Over Lines*, NEW YORK TIMES, Nov. 17, 2004, at C1; Matt Stump, *Lightspeed Ahead for SBC*, MULTICHANNEL NEWS, Nov. 11, 2004; Leslie Cauley, *SBC to Offer Net TV, Phone Service*, USA TODAY, Nov. 16, 2004, at B1.

⁵⁸⁷ *Id.*

⁵⁸⁸ *Id.*

⁵⁸⁹ Ken Belson, *A Stodgy Style, but BellSouth Starts to Loosen Its Top Button*, NEW YORK TIMES, Sept. 13, 2004

⁵⁹⁰ Verizon Communications, *Verizon Signs TV Exec to Guide Video Projects* (press release), Sept. 15, 2004

⁵⁹¹ Verizon Comments at 5-17.

⁵⁹² See *Pleading Cycle Established for Comments on Verizon's Petition for a Declaratory Ruling or, Alternatively, Interim Waiver and Verizon's Conditional Petition for Forbearance Under 47 U.S.C. 160(c) with Regard to Broadband Services Provided via Fiber to the Premises*, 19 FCC Rcd 12262 (2004).

⁵⁹³ *Petition of the Verizon Telephone Companies for Declaratory Ruling or, Alternatively, for Interim Waiver with Regard to Broadband Services Provided via Fiber to the Premises* (filed June 28, 2004).

authority⁵⁹⁴ and provide interim regulatory relief for such services until an appropriate regulatory framework for broadband services has been established.⁵⁹⁵

129. **Joint Ventures with DBS.** In the past year, several LECs have entered into joint ventures with DBS operators to offer packages of video programming service. While these agreements and services do not represent new, facilities-based competition, they may allow both LECs and DBS operators to become more competitive with cable operators' bundled offerings. SBC claims that partnering with DBS accounts for much of the admittedly limited progress that LECs have made in attempting to enter the video market.⁵⁹⁶

130. BellSouth, SBC, Qwest, and Verizon sell DBS service as part of a telecommunications package. In March 2004, SBC and EchoStar jointly launched a service throughout SBC's service area that they co-branded as "SBC DISH Network," with DISH prices starting at \$29.99 per month for SBC telephone customers. This service allows SBC customers to receive a package of high-speed Internet, local and long distance telephone, wireless telephone, and EchoStar video service on one bill with one order.⁵⁹⁷ As of October 2004, SBC indicated that it had 226,000 DISH Network customers.⁵⁹⁸ In August 2004, BellSouth and DIRECTV launched a similar joint service that allows Bell South customers to receive a bundle of high-speed Internet, local and long distance telephone, wireless telephone, and DIRECTV video service on one bill with one order.⁵⁹⁹ As of September 2004, BellSouth served over 90,000 DIRECTV customers.⁶⁰⁰ In January 2004, Verizon and DIRECTV introduced a service in Rhode Island that packages DIRECTV with Verizon by offering discounts on DIRECTV to Verizon customers.⁶⁰¹ In March 2004, Verizon and DIRECTV expanded this service to their New England and New York regions,⁶⁰² and in August 2004 they expanded this service to their Mid-Atlantic region. Verizon and DIRECTV expect to have coordinated billing later this year.⁶⁰³ Finally, Qwest announced agreements with both DIRECTV and EchoStar to offer packaged services in separate markets.⁶⁰⁴ As of September 2004, customers of Qwest's Choice DSL with MSN Premium service in 14 states could receive a \$5 per month discount on satellite television services from their choice of either DIRECTV or

⁵⁹⁴ See 47 U.S.C. § 160(c) *et seq.*

⁵⁹⁵ *Conditional Petition of the Verizon Telephone Companies for Forbearance Under 47 U.S.C. 160(c) with Regard to Broadband Services Provided via Fiber to the Premises* (filed June 28, 2004).

⁵⁹⁶ SBC Comments at 4.

⁵⁹⁷ SBC Communications Inc. and EchoStar Communications Corporation, *SBC Communications Adds New 'DISH' To The Menu, Launches 'Quadruple Play' Bundle With Satellite TV* (press release), Mar. 3, 2004.

⁵⁹⁸ SBC Communications, Inc., *SBC Communications Reports Strong Third-Quarter Results, Accelerates DSL Gains Delivers Second Consecutive Quarter of Revenue Growth* (press release), Oct. 21, 2004; see also *SBC Hails EchoStar Marketing Performance*, SATELLITE BUSINESS NEWS, July 23, 2004.

⁵⁹⁹ BellSouth Corp. and DIRECTV, Inc., *BellSouth Launches DIRECTV® Service Across The Southeast In Money Saving Bundles* (press release), Aug. 3, 2004.

⁶⁰⁰ BellSouth Corp., *BellSouth Reports Third Quarter Earnings* (press release), Sept. 30, 2004.

⁶⁰¹ Verizon Communications and DIRECTV, Inc., *Verizon Adds DIRECTV Programming, Creating the Most Comprehensive, Top-Quality Service Bundle in the Market* (press release), Jan. 29, 2004.

⁶⁰² Verizon Communications and DIRECTV, Inc., *From Marblehead to Tonawanda to Orient Point -- Verizon Adds DIRECTV's Programming to Calling Services, Internet Packages in New England and New York* (press release), Mar. 8, 2004.

⁶⁰³ Verizon Communications and DIRECTV, Inc., *Verizon Invites Mid-Atlantic Customers to Cut the Cable and Integrate Calling, Internet and DIRECTV Programming* (press release), Aug. 5, 2004.

⁶⁰⁴ Qwest Communications International, Inc., *Qwest Forges Agreement with EchoStar to Offer Satellite Services as Part of Communications Bundle* (press release), July 21, 2003.

DISH Network if they ordered these services from Qwest.⁶⁰⁵ In June 2004, Sprint announced that customers in its local-telephone operating territory could receive a \$5 per month discount from DISH Network if they also subscribe to Sprint DSL and/or telephone services.⁶⁰⁶ In August 2004, CenturyTel and EchoStar announced a strategic partnership that would allow CenturyTel to package DISH Network service as part of its telecommunications offerings in exchange for a \$25 million investment in EchoStar by CenturyTel in the form of a convertible note. CenturyTel expects to be able to offer these services as part of a single-bill, single-point-of-contact service by the end of the year.⁶⁰⁷

I. Electric and Gas Utilities

131. Electric and gas utilities possess certain assets that have long made them good candidates as entrants into the MVPD market, including access to public rights of way, ownership and operation of various infrastructures amenable to the provision of network services, and well-established relationships with customers.⁶⁰⁸ Some utilities continue to move forward with ventures involving multichannel video programming distribution, though their services are still not widespread in either the telecommunications or video distribution markets. Utilities do, however, continue to provide competition in scattered localities, most beneficially in rural areas.⁶⁰⁹

132. As previously reported, utilities provide voice, video, and data services by overbuilding incumbent cable systems with fiber optic networks. Some utilities have built systems on their own, but the most prominent utilities involved in the video distribution market are engaged in joint ventures with other companies.⁶¹⁰ We previously reported on Starpower, a joint venture between RCN and Potomac Electric and Power Company (PEPCO) operating in the Washington, D.C., area.⁶¹¹ In December 2004, the companies announced that RCN had completed its previously-announced acquisition of PEPCO's share of the system.⁶¹² Cinergy Broadband, a Cincinnati-based utility, and Current Communications, have formed a joint venture that aims to bring broadband over power lines to 20 million customers. Municipalities, in some cases, also provide voice video and high-speed Internet access services in competition with incumbent cable operators, or when others are unwilling to provide such services.⁶¹³ For example, municipal utilities in Glasgow, Kentucky; Lebanon, Ohio; Ashland, Oregon; Paragould,

⁶⁰⁵ Qwest Communications International, Inc., <http://www.qwest.com/residential/products/tvservices/index.html> (visited Sept. 24, 2004).

⁶⁰⁶ Sprint Corp., *Sprint Expands Portfolio with DISH Network Satellite TV Service* (press release), June 1, 2004.

⁶⁰⁷ CenturyTel, Inc. and EchoStar Communications Corporation, *CenturyTel and EchoStar Sign Strategic Partnership Agreement to Offer CenturyTel | DISH Network Satellite TV Services* (press release), Aug. 26, 2004.

⁶⁰⁸ See 1996 Report, 12 FCC Rcd at 4410-11 ¶¶ 95-96.

⁶⁰⁹ See paras. 72-73 *supra*. See also NATOA Comments at attachments.

⁶¹⁰ See 2003 Report, 19 FCC Rcd at 1606 ¶ 119.

⁶¹¹ *Id.*

⁶¹² See RCN, *RCN Elects to Acquire Remaining 50% Stake of Washington, D.C. Operation* (press release), Oct. 19, 2004; RCN, *RCN Corporation Announces Emergence From Bankruptcy* (press release), Dec. 21, 2004. See also paras. 72-73 *supra*.

⁶¹³ See Glasgow EPB, at <http://www.glasgow-ky.com/epb/faq01.htm> (visited Jan. 12, 2005); City of Lebanon, at <http://www.ci.lebanon.oh.us/departments/service.html> (visited Jan. 12, 2005); Ashland Fiber Network, at <http://www.ashlandfiber.net> (visited Jan. 12, 2005); City Light Water and Cable, at <http://www.clwc.com/profile.htm> (visited Jan. 12, 2005); Grant County Public Utilities District, at <http://www.gcpud.org> (visited Jan. 12, 2005); Click Networks, at <http://www.cityoftacoma.org> (visited Jan. 12, 2005); Cedar Falls Utilities, at <http://www.cfu.net>; Newnan Utilities, at <http://www.newnanutilities.org/>; Hometown Utilicom, at <http://www.hometownutilicom.org> (visited Jan. 12, 2005); See also NATOA Reply Comments at 6.